	Application No.	Applicant(s)
N (1 5 A 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	10/646,945	CROWLEY, ROBERT JOSEPH
Notice of Allowability	Examiner	Art Unit
	Alain L. Bashore	1762
The MAILING DATE of this communication apperall claims being allowable, PROSECUTION ON THE MERITS IS therewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RI	(OR REMAINS) CLOSED in this apport or other appropriate communication GHTS. This application is subject to	plication. If not included will be mailed in due course. THIS
1. \square This communication is responsive to <u>10-19-06</u> .		
2. $igwidge$ The allowed claim(s) is/are <u>19-68, 78-82</u> .		
3. ☐ Acknowledgment is made of a claim for foreign priority un a) ☐ All b) ☐ Some* c) ☐ None of the:		
1. Certified copies of the priority documents have		
2. Certified copies of the priority documents have	• • • • • • • • • • • • • • • • • • • •	
 Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)). 		
* Certified copies not received:		
Applicant has THREE MONTHS FROM THE "MAILING DATE" on noted below. Failure to timely comply will result in ABANDONM THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.		complying with the requirements
4. A SUBSTITUTE OATH OR DECLARATION must be submi INFORMAL PATENT APPLICATION (PTO-152) which give	itted. Note the attached EXAMINER es reason(s) why the oath or declara	'S AMENDMENT or NOTICE OF tion is deficient.
5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.		
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached		
1) 🗌 hereto or 2) 🔲 to Paper No./Mail Date		
(b) including changes required by the attached Examiner's Paper No./Mail Date	s Amendment / Comment or in the C	Office action of
Identifying indicia such as the application number (see 37 CFR 1. each sheet. Replacement sheet(s) should be labeled as such in the	84(c)) should be written on the drawing he header according to 37 CFR 1.121(ngs in the front (not the back) of d).
 DEPOSIT OF and/or INFORMATION about the deposit attached Examiner's comment regarding REQUIREMENT F 	sit of BIOLOGICAL MATERIAL n FOR THE DEPOSIT OF BIOLOGIC	nust be submitted. Note the AL MATERIAL.
Attachment(s) 1. ☐ Notice of References Cited (PTO-892)	5. Notice of Informal P	atant Application
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)	6. ☐ Interview Summary	• •
_	Paper No./Mail Dat	e
 Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 	7. 🛛 Examiner's Amendn	nent/Comment
Examiner's Comment Regarding Requirement for Deposit of Biological Material	8. Examiner's Stateme	ent of Reasons for Allowance
· ·	9.	
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	,	ALAIN L. BASHORE PRIMARY EXAMINER

U.S. Patent and Trademark Office PTOL-37 (Rev. 08-06) Application/Control Number: 10/646,945

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DETAILED ACTION

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Response to Arguments

1. Applicant's arguments, see pages 18-19, filed 10-19-06, with respect to what is now claimed (including what is amended by examiner's amendment below) and not shown in the prior art, have been fully considered and are persuasive. The finality of previous office action has been withdrawn.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Halgren on 12-11-06.

The application has been amended as follows:

Please amend claims 58-61 as follows:

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58. A method of manufacturing a carbon nanotube <u>on a substrate</u>, comprising:

growing a first carbon nanotube from a <u>first semi-conductor</u> growth site <u>on said substrate</u>; and

growing a second nanotube from said <u>first semi-conductor</u> growth site <u>on said substrate</u>.

- 59. The method as recited in claim 58, wherein said <u>semi-conductor</u> growth site <u>is comprised</u> of a <u>semi-conductor seed</u>.
- 60. The method as recited in claim 59, wherein said first and second nanotubes are in general axial alignment with one another on said growth site.
- 61. The method as recited in claim 59, wherein said semi-conductor <u>seed</u> comprises a junction.

Allowable Subject Matter

3. Claims 19-68, 78-82 are allowed. The drawings filed 8-22-03 are acceptable.

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Terminal Disclaimer

4. The terminal disclaimer filed on 1-24-07 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date U.S. patent 6,258,401 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alain L. Bashore whose telephone number is 571-272-6739. The examiner can normally be reached on about 7:30 am to 5:00 pm (Mon. thru Thurs.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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6. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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